The Apache Software Foundation Announces Apache® TinkerPop™ as a Top-Level Project

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Forest Hill, MD, May 23, 2016 (GLOBE NEWSWIRE) -- The Apache Software Foundation (ASF), the all-volunteer developers, stewards, and incubators of more than 350 Open Source projects and initiatives, announced today that Apache® TinkerPop™ has graduated from the Apache Incubator to become a Top-Level Project (TLP), signifying that the project's community and products have been well-governed under the ASF's meritocratic process and principles.

Apache TinkerPop is a graph computing framework that provides developers the tools required to build modern graph applications in any application domain and at any scale.

"Graph databases and mainstream interest in graph applications have seen tremendous growth in recent years," said Stephen Mallette, Vice President of Apache TinkerPop. "Since its inception in 2009, TinkerPop has been helping to promote that growth with its Open Source graph technology stack. We are excited to now do this same work as a top-level project within the Apache Software Foundation."

As a graph computing framework for both real-time, transactional graph databases (OLTP) and and batch analytic graph processors (OLAP), TinkerPop is useful for working with small graphs that fit within the confines of a single machine, as well as massive graphs that can only exist partitioned and distributed across a multi-machine compute cluster.

TinkerPop unifies these highly varied graph system models, giving developers less to learn, faster time to development, and less risk associated with both scaling their system and avoiding vendor lock-in.The Power to Process One Trillion EdgesThe central component to Apache TinkerPop is Gremlin, a graph traversal machine and language, which makes it possible to write complex queries (called traversals) that can execute either as real-time OLTP queries, analytic OLAP queries, or a hybrid of the two.

Because the Gremlin language is separate from the Gremlin machine, TinkerPop serves as a foundation for any query language to work against any TinkerPop-enabled system. Much like the Java virtual machine is host to Java, Groovy, Scala, Clojure, and the like, the Gremlin traversal machine is already host to Gremlin, SPARQL, SQL, and various host language embeddings in Python, JavaScript, etc. Once a language is compiled to a Gremlin traversal, the Gremlin machine can evaluate it against a graph database or processor. Instantly, languages such as SPARQL can execute across a one thousand node cluster for long running analytic jobs touching large parts of the graph or sub-second queries within a small neighborhood.

Apache TinkerPop is in use at organizations such as DataStax and IBM, among many others. Amazon.com is currently using TinkerPop and Gremlin to process its order fullfillment graph which contains approximately one trillion edges.

The core Apache TinkerPop release provides production-ready, reference implementations of a number of different data systems including Neo4j (OLTP), Apache Giraph (OLAP), Apache Spark (OLAP), and Apache Hadoop (OLAP). However, the bulk of the implementations are maintained within the larger TinkerPop ecosystem. These implementations include commercial and Open Source graph databases and processors, Gremlin language variants for various programming languages on and off the Java Virtual Machine, visualization applications for graph analysis and many other tools and libraries. The TinkerPop ecosystem is richly supported with many options for developers to choose from.

TinkerPop originated in 2009 at the Los Alamos National Laboratory. After two major releases (TinkerPop1 in 2011 and TinkerPop2 in 2012), the project was submitted to the Apache Incubator in January 2015.

"Following in a long line of Apache projects that revolutionized entire industries, starting with with the Apache HTTP Server, continuing with Web Services, search, and Big Data technologies, Apache TinkerPop will no doubt reshape the Graph Computing landscape," said Hadrian Zbarcea, co-Vice President of ASF Fundraising and Incubator Mentor of Apache TinkerPop. "While TinkerPop has just graduated as an ASF Top Level Project, it is already seven years old, a mature technology, backed by a number of vendors, a vibrant community, and absolutely brilliant developers."

The project welcomes those interested in contributing to Apache TinkerPop. For more information, visit http://tinkerpop.apache.org/docs/3.2.0-incubating/dev/developer/#_contributing

Availability and OversightApache TinkerPop software is released under the Apache License v2.0 and is overseen by a self-selected team of active contributors to the project. A Project Management Committee (PMC) guides the Project's day-to-day operations, including community development and product releases. For downloads, documentation, and ways to become involved with Apache TinkerPop, visit http://tinkerpop.apache.org/ and https://twitter.com/apachetinkerpopAbout the Apache IncubatorThe Apache Incubator is the entry path for projects and codebases wishing to become part of the efforts at The Apache Software Foundation. All code donations from external organizations and existing external projects wishing to join the ASF enter through the Incubator to: 1) ensure all donations are in accordance with the ASF legal standards; and 2) develop new communities that adhere to our guiding principles. Incubation is required of all newly accepted projects until a further review indicates that the infrastructure, communications, and decision making process have stabilized in a manner consistent with other successful ASF projects. While incubation status is not necessarily a reflection of the completeness or stability of the code, it does indicate that the project has yet to be fully endorsed by the ASF. For more information, visit http://incubator.apache.org/About The Apache Software Foundation (ASF)Established in 1999, the all-volunteer Foundation oversees more than 350 leading Open Source projects, including Apache HTTP Server--the world's most popular Web server software. Through the ASF's meritocratic process known as "The Apache Way," more than 550 individual Members and 5,300 Committers successfully collaborate to develop freely available enterprise-grade software, benefiting millions of users worldwide: thousands of software solutions are distributed under the Apache License; and the community actively participates in ASF mailing lists, mentoring initiatives, and ApacheCon, the Foundation's official user conference, trainings, and expo. The ASF is a US 501(c)(3) charitable organization, funded by individual donations and corporate sponsors including Alibaba Cloud Computing, ARM, Bloomberg, Budget Direct, Cerner, Cloudera, Comcast, Confluent, Facebook, Google, Hortonworks, HP, Huawei, IBM, InMotion Hosting, iSigma, LeaseWeb, Microsoft, OPDi, PhoenixNAP, Pivotal,

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